

## Stem-and-Leaf Diagrams

A **stem-and-leaf diagram** is a graph that shows the shape of the data according to the data place values. The “**leaf**” of a number is usually the right-hand digit. The leaf is one digit. The “**stem**” is the portion of the number to the left of the leaf. The stem can be one or more digits.

### Example

Make a stem-and-leaf diagram using the data showing minutes spent eating lunch.

Minutes Spent Eating Lunch  
46, 35, 12, 37, 28, 10, 22, 54, 19, 13, 46, 51

**Step 1:** Decide what the stem of the diagram will represent. Since these data are two-digit numbers, the stem will be the tens digits and the leaves will be the ones digits.

Step 2	
Stem	Leaf
1	2 0 9 3
2	8 2
3	5 7
4	6 6
5	4 1

Step 3	
Stem	Leaf
1	0 2 3 9
2	2 8
3	5 7
4	6 6
5	1 4

**Step 2:** Write the tens digits in order in the left-hand column of the diagram. Then write each leaf at the right of its stem as they occur in the problem.

**Step 3:** Complete the second stem-and-leaf diagram, with the leaves in order from least to greatest.

### Try It

- a. Make a stem-and-leaf diagram of the data showing the monthly attendance at the teen club.

Attendance at Teen Club  
489, 527, 479, 519, 514, 480, 493, 523, 508, 504

Step 2		Step 3	
Stem	Leaf	Stem	Leaf

- Write the stems in the left column. Since all of the data are in the 47s, 48s, 49s, 50s, 51s, and 52s, you need six stems.
- For each number, write the last digit (the leaf) in the right column on the same line as the matching stem.

- b. Make a stem-and-leaf diagram to show the data in this chart. Remember to put the leaves in order.

Sit-ups in One Minute  
35, 28, 52, 58, 12, 29,  
41, 37, 19, 23, 26, 45

Step 2		Step 3	
Stem	Leaf	Stem	Leaf